

MAJOR RESEARCH ACCOMPLISHMENTS

Unit - API

- 1910 - Present - Provided identifications of external and internal parasites to thousands of investigators from federal, State, and private institutions, especially those engaged in control, eradication, or quarantine efforts.
- 1916 - Published monograph on nematode parasites of small mammals.
- 1927 - Published monograph on nematode parasites of birds.
- 1936 - U. S. National Museum Helminthological Collection returned to USDA in Beltsville where together with the Bureau of Animal Industry Parasite Collection was established one of the largest collections of parasites in the world. Designated the National Parasite Collection in 1969, this working tool has provided reference specimens for countless workers around the world as well as being indispensable in USDA quarantine and eradication efforts.
- 1942 - Provided information on the distribution and vectors of tropical parasites such as malaria, filariasis, and schistosomiasis, in strategic areas during World War II.
- 1945 - Published and later revised (1964) a Check List of Internal and External Parasites of Domestic Animals in the United States, its Possessions, and Canada, including data on distribution. This is one of the most widely used and cited references in veterinary parasitology.
- 1951 - Clarified confused taxonomy of nematodes of horses by publishing list of valid names after appeal to International Commission on Zoological Nomenclature.
- 1951-1969 - Supplied information to the U. S. Armed Forces on dog parasites in the Far East during World War II and the Korean and Vietnam conflicts. These parasites, particularly the heartworm, were serious problems among sentry dogs in these areas.
- 1952 - Completed publication of world-famous 18-part, 5711 page bibliography of all known literature on parasitology.
- 1960 - Described the development of bovine cysticercosis which are valuable in determining age and therefore, source of infection in control and eradication programs, and establishing procedures in meat inspection for this parasite.
- Provided prompt identification of the African red tick, an exotic species which was found in the U.S. for the first time in 1960. This enabled the eradication of this parasite, known vector of several important diseases of livestock, within a relatively short period.
- 1961 - Provided the first identification of the rat lungworm, Anglostrongylus cantonensis, from the brain of a man. This led to the discovery that this nematode is the causative agent of parasitic or eosinophilic meningoencephalitis.

- 1964 - Identified and described a new nematode parasite of man, Capillaria philippinensis, that in a few years caused more than 200 deaths in the Philippine Islands. The accurate morphological observations and descriptions provided valuable clues to the life cycle of the parasite.
- 1966 - Began regular publication of bibliographies and in-depth indexes to current, world-wide parasitological literature.
- 1968 - Published descriptions and keys to many common nematode parasites of ruminants.
- 1969 - At the request of the U. S. Armed Services, published a special bibliography and lists of parasites of man and domestic animals in Vietnam during the conflict in Southeast Asia.
- 1970 - Published checklist of internal and external parasites of deer in North America.
- 1971 - Discovered larvae of the eyeworm, Thelazia gulosa, in the face fly, Musca autumnalis. This was the first report of a natural vector for the eyeworm of cattle in eastern North America.
- 1972 - Described the morphogenesis of larval stages of the swine kidney worm, Stephanurus dentatus, in swine. The study indicated that a period of development in lymph nodes is necessary before development proceeds in the liver. This new information on the life cycle in swine should be useful in efforts to develop a vaccine against the nematode.
- Published the first manual for the identification of parasites in tissue sections including 249 figures of parasites in lesions.
- 1973 - Issued a detailed, indexed catalogue of the literature on Chagas disease, an important disease of humans in South America.
- 1974 - Completed for publication a monumental index to the literature on ticks and tick-borne diseases of man and animals.